CLAIMS

1. A teaching position correcting apparatus for correcting a teaching point position of a robot operation program, comprising

work tool moving/stopping means for allowing an work tool mounted on an arm tip end of said robot to move toward a teaching point of said robot operation program and to stop said work tool before it reaches the teaching point,

jog feed means for moving said robot by jog feeding from a position where said work tool is stopped by said work tool moving/stopping means,

contact-judging means for judging whether said work tool and an operation target come into contact with each other, and

teaching position correction instructing means for commanding to correct the teaching position.

2. The teaching position correcting apparatus according to claim 1, wherein said contact-judging means applies an electric current to the work tool to judge whether or not said work tool and an operation target come into contact with each other from electrical variation of conduct by contact with the operation target.

3. The teaching position correcting apparatus according to claim 1, wherein said contact-judging means judges whether said work tool and an operation target come into contact with each

other from a motor current value of said robot.

4. The teaching position correcting apparatus according to claim 1, wherein said contact-judging means includes a sensor, provided on said work tool, for detecting the contact of the work tool with the operation target.

5. The teaching position correcting apparatus according to any one of claims 1 to 4, wherein said work tool moving/stopping means stops said robot when said contact-judging means detects the contact between said work tool and said operation target.

6. A teaching position correcting apparatus for correcting a teaching point position of a robot operation program, comprising

work tool moving/stopping means for allowing an work tool mounted on an arm tip end of said robot to move toward a teaching point of said robot operation program and to stop said work tool before it reaches the teaching point,

jog feed means for moving said robot by jog feeding from a position where said work tool is stopped by said work tool moving/stopping means,

positional relation presenting means for presenting, to an operator, a positional relation between said work tool and an operation target, and

teaching position correction instructing means for commanding to correct a teaching position.

7. The teaching position correcting apparatus according to claim 6, wherein said positional relation presenting means includes;

an work tool tip end which can be attached to and detached from said work tool,

camera means for capturing the operation target in view, and

image display means for presenting an image of said camera means to an operator.

8. The teaching position correcting apparatus according to claim 1 or 6, wherein said jog feed means allows the robot to move along a jog feed coordinate system based on an attitude of said work tool.

9. The teaching position correcting apparatus according to claim 1 or 6, wherein said work tool of said robot includes a movable portion which is driven by a servo mechanism, and said movable portion has a mechanism which comes into contact with the operation target.

10. The teaching position correcting apparatus according to claim 1 or 6, wherein said work tool is a spot welding gun.

11. The teaching position correcting apparatus according to claim 1 or 6, wherein said work tool is a servo hand which grasps

an article by a servo mechanism.

12. The teaching position correcting apparatus according to claim 1 or 6, further comprising means for extracting a teaching point to be taught and corrected from a program.

13. The teaching position correcting apparatus according to claim 1 or 6, further comprising means for designating a teaching point to be taught and corrected from a program.

14. The teaching position correcting apparatus according to claim 1 or 6, further comprising means for automatically correcting a next and subsequent teaching point positions based on a position correcting amount of one or more teaching points whose teaching position was corrected.

15. A teaching position correcting apparatus for correcting a teaching point position of a robot operation program, comprising

work tool moving/stopping means for allowing an work tool mounted on an arm tip end of said robot to move toward a teaching point of said robot operation program and to stop said work tool before it reaches the teaching point,

jog feed means for moving said robot by jog feeding from a position where said work tool is stopped by said work tool moving/stopping means,

teaching position correction instructing means for

commanding to correct a teaching position, and

teaching point position correcting means for automatically correcting a next and subsequent teaching point positions based on a position correcting amount of one or more teaching points whose teaching position was corrected.

16. The teaching position correcting apparatus according to claim 15, further comprising means for calculating an attitude variation amount of the robot work tool at a current teaching point and a next teaching point, and means for judging whether a next and subsequent teaching point positions should be automatically corrected based on the attitude variation amount.

17. A teaching position correcting apparatus for correcting a teaching point position of a robot operation program, comprising

work tool moving/stopping means for allowing an work tool mounted on an arm tip end of said robot to move toward a teaching point of said robot operation program and to stop said work tool when the distance between said work tool and said teaching point becomes shorter than a predetermined distance,

jog feed means for moving said robot by jog feeding from a position where said work tool is stopped by said work tool moving/stopping means, and

teaching position correction instructing means for commanding to correct a teaching position.